



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/367,607	02/07/2012	Brian Thomas Boland	26295-19699	2496

87851 7590 04/06/2017  
Facebook/Fenwick  
Silicon Valley Center  
801 California Street  
Mountain View, CA 94041

EXAMINER
----------

PATEL, DIPEN M

ART UNIT	PAPER NUMBER
----------	--------------

3688

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

04/06/2017

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ptoc@fenwick.com  
fwfacebookpatents@fenwick.com

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

*Ex Parte* BRIAN THOMAS BOLAND and SEAN MICHAEL BRUICH

---

Appeal 2015-005285<sup>1</sup>  
Application 13/367,607<sup>2</sup>  
Technology Center 3600

---

Before BIBHU R. MOHANTY, NINA L. MEDLOCK, and  
AMEE A. SHAH, *Administrative Patent Judges*.

MEDLOCK, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner’s final rejection of claims 1–5, 8–11, and 13–24. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

---

<sup>1</sup> Our decision references Appellants’ Appeal Brief (“App. Br.,” filed November 6, 2014) and Reply Br. (“Reply Br.,” filed April 17, 2015), and the Examiner’s Answer (“Ans.,” mailed February 20, 2015) and Final Office Action (“Final Act.,” mailed May 20, 2014).

<sup>2</sup> Appellants identify Facebook, Inc. as the real party in interest. App. Br. 2.

## CLAIMED INVENTION

Appellants' claimed invention "relates generally to social networking, and in particular to providing display items to users of a social networking system" (Spec. ¶ 1).

Claims 1, 18, and 19 are the independent claims on appeal. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A method comprising:
  - maintaining an ad campaign in a data store, the ad campaign comprising a plurality of requests for display items, the display items including a first plurality of display items of a first display item type and a second plurality of display items of a second display item type;
  - receiving a predetermined display sequence defining a time-based ordering of display item types for displaying the display items to be shown to an individual user in connection with the ad campaign;
  - identifying a viewing user of an online system;
  - for each of a plurality of opportunities to provide a content item to the viewing user, the opportunities occurring serially over time:
    - determining, based on the predetermined display sequence, a display item type to provide to the viewing user in connection with the ad campaign,
    - selecting by a processor a display item based at least in part on the display item type determined for the opportunity, and
    - sending the selected display item for display to the viewing user.

## REJECTIONS

Claims 1–5, 8–11, and 13–24 are rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter.

Claims 1–3, 9–11, 13–16, 18, 19, and 21–24 are rejected under 35 U.S.C. § 103(a) as unpatentable over Novikov et al. (US 2011/0153377 A1, pub. June 23, 2011, hereinafter “Novikov”) and Gaelle (WO 2011/061586 A1, pub. May 26, 2011).<sup>3</sup>

Claims 4, 5, 8, 17, and 20 are rejected under 35 U.S.C. § 103(a) as unpatentable over Novikov, Gaelle, and Behroozi et al. (US 2011/0131093 A1, pub. June 2, 2011, hereinafter “Behroozi”).

## ANALYSIS

### *Non-Statutory Subject Matter*

Under 35 U.S.C. § 101, an invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. The Supreme Court, however, has long interpreted § 101 to include an implicit exception: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *See, e.g., Alice Corp. Pty Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014).

The Supreme Court, in *Alice*, reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1300 (2012), “for distinguishing patents that claim

---

<sup>3</sup> The Examiner identifies claim 20 as among the claims rejected as obvious over the combination of Novikov and Gaelle (Final Act. 2). However, claim 20 depends from claim 17, which stands rejected as obvious over the combination of Novikov, Gaelle, and Behroozi (*id.* at 14). Therefore, we treat claim 20 as subject to the same rejection as claim 17.

laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of these concepts.” *Alice Corp.*, 134 S. Ct. at 2355. The first step in that analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts” (*id.*), e.g., to an abstract idea. If the claims are not directed to a patent-ineligible concept, the inquiry ends. Otherwise, the inquiry proceeds to the second step where the elements of the claims are considered “individually and ‘as an ordered combination’” to determine whether there are additional elements that “‘transform the nature of the claim’ into a patent-eligible application.” *Alice Corp.*, 134 S. Ct. at 2355 (quoting *Mayo*, 132 S. Ct. at 1297).

The Court acknowledged in *Mayo* that “all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *Mayo*, 132 S. Ct. at 1293. We, therefore, look to whether the claims focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery.

*See Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1336 (Fed. Cir. 2016).

Appellants argue here that the § 101 rejection cannot be sustained because “the Office Action lacks the requisite evidence to support its finding that claim 1 is an abstract idea” (Reply Br. 4). Appellants assert that the Supreme Court held, in *Bilski*, that “specific references must be cited to support a finding that an alleged abstract idea is both (1) long prevalent in the field (i.e., widely used), and (2) long known in the field” (*id.* at 5), and that the Board has adopted this same standard (*id.* (citing *PNC Bank v. Secure Access*, CBM2014-00100, 2014 WL 4537440 (PTAB September 9, 2014))). Appellants, thus, maintain that because the Office Action fails to

cite any supporting references, the Examiner has failed to provide “the ‘substantial evidence’ needed to establish a prima facie case that the claims are directed to an abstract idea” (*id.*).

As an initial matter, we find nothing in *Bilski* that requires the Office to identify specific references to support a finding that a claim is directed to an abstract idea. Nor, contrary to Appellants’ assertion, did this Board hold, in *PNC Bank v. Secure Access*, that there is any such requirement.

Here, in rejecting the pending claims under § 101, the Examiner analyzed the claims using the *Mayo* two-step framework, in accordance with the guidance set forth in the USPTO’s “2014 Interim Guidance on Patent Subject Matter Eligibility,” 79 Fed. Reg. 74618 (Dec. 16, 2014). Specifically, the Examiner notified Appellants that independent claims 1, 18, and 19 are directed to “presenting targeted advertisements to a particular user based on a pre-determined sequence of ads which are ordered/reordered/updated based on time”; that this is an abstract idea; and that the claims do not include limitations that are “significantly more” than the abstract idea because the additional elements merely involve “generic computer functionalities, which are well-understood, routine, and conventional activities previously known to the industry” (Ans. 5–6). The Examiner, thus, set forth a proper rejection under § 101 such that the burden shifted to Appellants to explain why the claims are patent-eligible.

Appellants argue that even if the claims may be related to the idea of “presenting targeted advertisements to a particular user based on a pre-determined sequence of ads which are ordered/reordered/updated based on time,” the claims “are not essentially ‘directed to it’ within the meaning of *Alice*” because the claims do not preempt or otherwise tie up the use of

“presenting targeted advertisements to a particular user based on a pre-determined sequence of ads which are ordered/reordered/updated based on time” so that others cannot use the idea (Reply Br. 5–6). That argument is similarly unpersuasive.

Although the Supreme Court has described “the concern that drives this exclusionary principle [i.e., the exclusion of abstract ideas from patent eligible subject matter] as one of pre-emption,” *see Alice Corp.*, 134 S. Ct. at 2354, characterizing pre-emption as a driving concern for patent eligibility is not the same as characterizing pre-emption as the sole test for patent eligibility. “The Supreme Court has made clear that the principle of preemption is the basis for the judicial exceptions to patentability” and “[f]or this reason, questions on preemption are inherent in and resolved by the § 101 analysis.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (citing *Alice Corp.*, 134 S. Ct. at 2354). Although “preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *Id.*

Turning to the second step of the *Alice* framework, Appellants assert that claims 1–5, 8–11, and 13–24 recite “specific inventive concepts that are not found in the prior art,” and that “[t]hese features constitute ‘inventive concepts’ that are ‘substantially more’ than the generically alleged ‘presenting targeted advertisements to a particular user based on a pre-determined sequence of ads which are ordered/re-ordered/updated based on time’” (Reply Br. 7). Yet to the extent Appellants argue that the claims necessarily contain an “inventive concept” based on their alleged novelty and non-obviousness (*id.*), Appellants misapprehend the controlling precedent. Although the second step in the *Alice/Mayo* framework is termed

a search for an “inventive concept,” the analysis is not an evaluation of novelty or non-obviousness, but rather, a search for “an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.” *Alice*, 134 S. Ct. at 2355. A novel and nonobvious claim directed to a purely abstract idea is, nonetheless, patent-ineligible. *See Mayo*, 132 S. Ct. at 1304

Contrary to Appellants’ assertions, we also find no parallel between the present claims and those in *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245 (Fed. Cir. 2014). In *DDR Holdings*, the Federal Circuit determined that, although the patent claims at issue involved conventional computers and the Internet, the claims addressed the problem of retaining website visitors who, if adhering to the routine, conventional functioning of Internet hyperlink protocol, would be transported instantly away from a host’s website after “clicking” on an advertisement and activating a hyperlink. *DDR Holdings*, 773 F.3d at 1257. The Federal Circuit, thus, held that the claims were directed to statutory subject matter because they claim a solution “necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.” *Id.*

Appellants argue that, similar to *DDR Holdings*, the claimed invention here addresses a problem (i.e., “a sequencing for targeting advertisements to the user who is viewing the advertisement”) that arises specifically in the realm of computer networks, and whose solution is necessarily rooted in computer technology (Reply Br. 8). Yet, unlike the situation in *DDR Holdings*, there is no indication here that a computer network, or the Internet, in particular, is used other than in its normal, expected, and routine



manner for requesting, receiving, and processing data. Ad identification is not a technical problem; it is a marketing problem. And selecting an advertisement for targeting to a user based on information about the user and a display sequence is a commercial solution, not a technical solution.

We are not persuaded by Appellants' argument that the Examiner erred in rejecting claims 1–5, 8–11, and 13–24 under 35 U.S.C. § 101. Therefore, we sustain the Examiner's rejection.

*Obviousness*

*Independent Claim 1 and Dependent Claims 2, 3, 9–11, and 13–16*

We are persuaded by Appellants' argument that the Examiner erred in rejecting independent claim 1 under 35 U.S.C. § 103(a) because neither Novikov nor Gaele, alone or in combination, discloses or suggests “receiving a predetermined display sequence defining a time-based ordering of display item types for displaying the display items to be shown to an individual user in connection with the ad campaign,” as recited in claim 1 (App. Br. 4–8).

Novikov discloses a social networking system that uses information from and about its users to select social networking content and advertising for presentation to users in a way that optimizes one or more optimization goals, e.g., monetization, user sharing, user engagement, system growth, and user communication (Novikov, Abstract; *see also id.* ¶ 87). Novikov discloses that a content item selector of the social networking system determines what type of content item (e.g., an advertisement, a news story, a photo, a video) to add to an information window based on what optimization goal is being optimized by the system and the ability of that particular type of content to promote the optimization goal (*id.* ¶¶ 65, 86). For example, the

goal for a new user of the social networking system may be to encourage growth of a user's social networking system, i.e., the optimization goal is increased user communication, leading to the selection of content types associated with encouraging the user to link to more connections (*id.* ¶ 87). Novikov discloses that the goal also may change over time, e.g., once a user has formed lots of connections, the goal may be to focus on monetization, providing ads to the user to increase revenue (*id.* ¶ 89).

Gaelle is directed to a system and method for distributing advertisements using a wireless communication network, and discloses that an advertising message identifies a plurality of advertisements and specifies an order for presentation of the advertisements (Gaelle, Abstract). These advertisements may include graphics, video, sound, or other media for conveying information to a user about a product or service (*id.* at 2, ll. 20–22).

In rejecting claim 1 under 35 U.S.C. § 103(a), the Examiner asserts that, under a broadest reasonable interpretation, a person of ordinary skill in the art would have understood that Novikov teaches the subject matter being claimed, i.e., the argued limitation, because “Novikov discloses which item types to present to a user based on optimization goals, see [0007]; [0063]; [0086] and the selection of content changes over time for a particular user, see [0086]; [0089] . . .” (Final Act. 4; *see also id.* at 5–6 and Ans. 7–8). However, the Examiner explains that, in view of compact prosecution, an additional reference, i.e., Gaelle, is cited that explicitly discloses that content to be presented to users can be linked in a defined sequential order (Final Act. 4–6). The Examiner notes that Novikov and Gaelle are in the same field of endeavor, and the Examiner concludes that it would have been

obvious to a person of ordinary skill in the art at the time Appellants' invention was made to have "modified the teachings of Novikov in view of Gaelle in order to display a plurality of ads in a certain order or sequence (*id.* at 6). Specifically addressing Appellants' arguments, the Examiner further explains that "both references teach item type," i.e., different types of advertisements such as graphics, video, audio, and that the "advertisements are . . . selected and targeted to the user based on predetermined time-based sequence (as taught by Gaelle) and targeted based on optimization which changes over time (as taught by Novikov)" (*id.* at 19).

As an initial matter, we agree with Appellants that neither Novikov nor Gaelle discloses or suggests that a predetermined display sequence is received that defines an ordering of item types (App. Br. 5–6). As described above, Gaelle discloses an advertising content message that identifies a plurality of advertisements and specifies an order for presentation of the advertisements (Gaelle, Abstract). Gaelle also discloses that the advertisements may include graphics, video, sound, or other media (*id.* at 2, ll. 20–22). However, we agree with Appellants that there is nothing in the cited portions of Gaelle that discloses or suggests that Gaelle's advertising content message "defin[es] a time-based ordering of display item types," as recited in claim 1 (App. Br. 5). There also is no such disclosure or suggestion in the cited portions of Novikov, which merely disclose that item types are selected based on the optimization goal being pursued, and not on a predetermined order of item types, as called for in claim 1.

The Examiner proposes in the rejection, as best understood, to modify Novikov, in view of Gaelle's ordering of advertisements in accordance with its advertising content message, to present content types in a predetermined

order. Yet Gaelle merely discloses presenting advertisements (that may be of different types) in a predetermined order — a process that, as Appellants observe, is different from “a process in which the type is first determined based on the predetermined order, and then an item is . . . selected based in part on that determined type,” as called for in claim 1 (App. Br. 10).

Moreover, even putting that deficiency aside, we agree with Appellants that the rejection cannot stand because modifying Novikov as the Examiner proposes, i.e., such that selection of a type of content item is based on a predetermined order of types rather than based on goal optimization, would impermissibly change the principle of operation of Novikov, which is to select social networking content, i.e., content item types, for presentation to users in a way that optimizes for one or more optimization goals (App. Br. 7 (citing Novikov ¶¶ 7, 9, Abstract)). Combinations that change the “basic principles under which the [prior art] was designed to operate,” *In re Ratti*, 270 F.2d 810, 813 (CCPA 1959), or that render the prior art “inoperable for its intended purpose,” *In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984), may fail to support an obviousness determination.

In view of the foregoing, we do not sustain the Examiner’s rejection of claim 1 under 35 U.S.C. § 103(a). For the same reasons, we also do not sustain the Examiner’s rejection of dependent claims 2, 3, 9–11, and 13–16. *Cf. In re Fritch*, 972 F.2d 1260, 1266 (Fed. Cir. 1992) (“dependent claims are nonobvious if the independent claims from which they depend are nonobvious”).

#### *Independent Claims 18 and 19*

Independent claims 18 and 19 include language substantially similar to the language of claim 1, and stand rejected based on the same rationale

applied with respect to claim 1 (Final Act. 2–9). Therefore, we do not sustain the Examiner’s rejection of independent claims 18 and 19 under 35 U.S.C. § 103(a) for the same reasons set forth above with respect to independent claim 1.

*Dependent Claims 4, 5, 8, 17, and 20*

Claims 4, 5, 8, 17, and 20 depend, directly or indirectly, from independent claim 1. The rejection of these dependent claims does not cure the deficiency in the Examiner’s rejection of independent claim 1. Therefore, we do not sustain the Examiner’s rejection of claims 4, 5, 8, 17, and 20 under 35 U.S.C. § 103(a) for the same reasons set forth above with respect to independent claim 1.

DECISION

The Examiner’s rejection of claims 1–5, 8–11, and 13–24 under 35 U.S.C. § 101 is affirmed.

The Examiner’s rejections of claims 1–5, 8–11, and 13–24 under 35 U.S.C. § 103(a) are reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED